## Wharton Property Coal Reserve Estimate Based upon electronic re-calculation of Mineral Associates, Inc. Report

Seam	Area (acres)		
	Surface	Underground	Total
Total Morgan Springs & Richey Ridge	1,462	974	2,436
Total Lantana	778	550	1,328
Total Sewanee	1,750	-	1,750
Total Richland	1,076	10,642	11,719
Total Nelson	14,615	14,615	29,231
Total all seams	19,682	26,782	46,463

Seam	In-Place Resources (tons)		
	Surface	Underground	Total
Total Morgan Springs & Richey Ridge	4,706,546	5,092,426	9,798,973
Total Lantana	2,030,348	3,236,625	5,266,972
Total Sewanee	6,429,466	-	6,429,466
Total Richland	5,398,021	54,083,629	59,481,651
Total Nelson	1,107,237	66,973,497	68,080,733
Total all seams	19,671,618	129,386,178	149,057,795

Seam	Recoverable Reserves (tons)		
	Surface	Underground	Total
Total Morgan Springs & Richey Ridge	4,235,892	2,546,213	6,782,105
Total Lantana	1,827,313	1,618,312	3,445,625
Total Sewanee	5,786,519	-	5,786,519
Total Richland	4,858,219	27,041,815	31,900,034
Total Nelson	996,513	33,486,748	34,483,261
Total all seams	17,704,456	64,693,089	82,397,545

Seam	Recoverable Reserves Contained Within Wharton Property & Rock Creek Watershed Boundary (tons)		
	Surface	Underground	Total
Total Morgan Springs & Richey Ridge	1,811,415	749,267	2,560,682
Total Lantana	694,349	426,365	1,120,715
Total Sewanee	5,388,122	-	5,388,122
Total Richland	2,901,266	13,056,943	15,958,209
Total Nelson	25,302	17,200,461	17,225,763
Total all seams	10,820,454	31,433,036	42,253,490

Total all seams sterilized reserves 667,224 4,948,847 5,616,070 (too small or remote for mining)

Seam	After Removal of Reserves in Watershed the Following Reserves are Viable For Permitting and Mining (tons)		
	Surface	Underground	Total
Total Morgan Springs & Richey Ridge	2,418,097	1,796,946	4,215,043
Total Lantana	1,085,222	497,713	1,582,935
Total Sewanee	-	-	-
Total Richland	1,742,249	12,740,993	14,483,242
Total Nelson	971,211	13,275,553	14,246,764
Total all seams	6,216,778	28,311,206	34,527,984

Seam	Total Reserves Affected by Watershed Removal (tons)		
	Surface	Underground	Total
Total Morgan Springs & Richey Ridge	1,817,794	749,267	2,567,062
Total Lantana	742,091	1,120,599	1,862,690
Total Sewanee	5,786,519	-	5,786,519
Total Richland	3,115,971	14,300,821	17,416,792
Total Nelson	25,302	20,211,195	20,236,497
Total all seams	11,487,678	36,381,883	47,869,561

## Notes:

Coal reserves based up coal density of 80 pounds per cubic foot

Surface mineable recovery estimated at 90%

Underground mineable recovery estimated at 50%

All reserves based on mineable seam locations from Jan 10, 1982 Mineral Associates, Inc reserve report.

All seam locations copied and re-calculated using AutoCad areas and Mineral Associates coal thickness data